APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,250	06/05/2001	Yuichi Matsumoto	35.C15419	5978

5514   7590   07/10/2006

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER
JONES III, CLYDE H

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/873,250	MATSUMOTO ET AL.
	Examiner	Art Unit	
	Clyde H. Jones III	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/22/2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-17* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1 and 14-17, on pages 13-16 in the

11/22/2005 Remarks have been considered but are moot in view of the new ground(s)

of rejection.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, and 2-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Wehmeyer (USPN 5,781,247) in view of Gagnon et al. (US 6,522,342 B1).

        Regarding claim 1, Wehmeyer teaches the claimed "image processing

apparatus" as follows:

- The claimed "image input means for inputting an image signal relating to a

    television broadcast" is met by the VIDEO IN connection pictured in Figure 5

    and discussed in column 3, lines 26-28.

- The claimed "menu generation means for generating a menu image signal

    representing an operation menu relating to processing of the image signal

    and having a plurality of menu portions at different hierarchical levels each

including at least one menu item, and generating a registration menu image

signal representing a registration menu having a plurality of items

corresponding to said plurality of function keys" is met by OSD Processor 500

of Figure 5, which generates graphics under control of the Main

Microprocessor 510 [col. 3, lines 19-22]. The OSD provides a hierarchy of

menus for controlling functions affecting the display of the video image [col. 1,

lines 50-52], pictures in Figure 7 as item number 710. Furthermore, the

registration menu image signal is met by the FETCH menu, which can have

selected functions added to it [col. 2, lines 49-66] and assigned to each one

of the plurality of "virtual buttons" discussed in column 2, lines 22-31].

- The claimed "display control means for displaying on a display unit an image

  corresponding to the image signal output from said image input means and

  the operation menu corresponding to the menu image signal generated by

  said menu generation means" is met by the Fast Switch, which can be

  controlled to display the video image signal and the graphics signal [col. 3,

  lines 38-43].

- The claimed "instruction input means for receiving an instruction from an

  operating unit including a plurality of function keys and selection means for

  selecting a desired item in the operation menu displayed on said display unit"

  is met by the remote controller 400 pictured in Figure 4, including an up-key

  and a down-key 409 for selecting functions within the hierarchical menu

system and a FETCH key 411 for assigning selected functions to the "virtual buttons" 101-107 [col. 2, lines 22-66].

- The claimed "assignment means for assigning, according to a predetermined operation by the operating unit, a function according to one item selected by said selection means from the items in the operation menu displayed on said display unit to one of said plurality of function keys" is met by the assignment of the desired command from the menu hierarchy to be added to the FETCH menu "virtual buttons" 101-107 [col. 2, lines 43-66].

- The claimed "control means for controlling, in response to said operation of the function key, said image input means to execute processing corresponding to the function assigned to said function key by said assignment means" is met by the user having the ability to cause the execution of the desired command within the FETCH menu of "virtual buttons" based on his selection of the virtual button without having to browse through the complicated hierarchy of menus to access his favorite and/or mostly used commands [col. 1, lines 58-61]. As can be seen in Figure 7, the virtual buttons 701-707 control different functions that are easily accessible and control the image input means to execute that function.

However, Wehmeyer fails to specifically disclose the newly added limitations "at a lowest hierarchical level" and "with one-to-one correspondence between a plurality of functions and said plurality of function keys".

In an analogous art Gagnon teaches it is desirable to assign keys on a remote control to actuate functions that correspond one-to-one with the menu items at the lowest hierarchical level (fig. 14-16 show hierarchical menus with lowest levels, i.e., user can not select any lower categories, being shown fig. 15 and lowest levels displayed, i.e., the lowest subcategory of a particular screen is shown in fig. 16; Gagnon teaches the function keys on the remote/screen correspond one-to-one, according to predefined templates/subroutines executed by the processor, to the functions available from the corresponding screen - col. 24, lines 46-53; col. 24, line63-col. 25, line 4-, for increasing the comfort of the user when using the GUI; col. 24, lines 59-62).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Wehmeyer to include the further limitations "at a lowest hierarchical level" and "with one-to-one correspondence between a plurality of functions and said plurality of function keys" as taught by Gagnon for the added advantages of increasing the flexibility of the interface, increasing user comfort and the intuitiveness of the GUI.

Regarding claim 3, the claimed "apparatus according to claim 1, wherein said menu generation means generates said registration menu image signal so that said registration menu is displayed adjacent to said operation menu" is met by Wehmeyer - Figures 2 and 7, which show the FETCH menu 201-207/701-707 during programming (Figure 2) adjacent to the operations menu location 208/708.

Regarding claim 4, the claimed "apparatus according to claim 1, wherein said selection means is also capable of selecting one of the items in said registration menu as desired, and said assignment means assigns the function corresponding to the item selected from said operation menu by said selection means to one of the function keys corresponding to the item selected from the registration menu by said selection means" is met by the fact that any command from any menu or submenu can be assigned to any of locations 103-107 of the FETCH menu [Wehmeyer - col. 2, lines 43-46].

Regarding claim 5, the claimed "apparatus according to claim 1, wherein said "assignment means performs said assignment operation according to the key operation performed by said operating unit to determine one of the items in said registration menu as desired" is met by the fact that any command from any menu or submenu can be assigned to any of locations 103-107 of the FETCH menu [Wehmeyer - col. 2, lines 43-46].

Regarding claim 6, the Wehmeyer reference teaches all of that which is discussed above with regards to claim 1. The Wehmeyer reference does not, however, teach that the "assignment means performs said assignment operation in response to the absence of any operation by said operating unit during a predetermined time period". The Wehmeyer reference simply discusses the fact that any command from any menu or submenu can be assigned to any of locations 103-107 of the FETCH menu

[col. 2, lines 43-46] and that the user confirms the selection of the assignment by

pressing the menu key [col. 3, line 67 – col. 4, line 3].

The examiner takes OFFICIAL NOTICE that it is notoriously well known in the art

to make default settings after a certain time period of inactivity. Therefore, the examiner

submits that it would have been obvious to one of ordinary skill in the art at the time of

the invention to enable the virtual function buttons to be assigned by default if no button

selection is made within a pre-determined time period. This would have been useful in

allowing users to continue operation of the assignment functions as disclosed, in order

to simplify the user task and perform the functions required of several buttons to

achieve a specific function.

Regarding claim 7, the claimed "apparatus according to claim 1, wherein said

menu portion at the lowest level includes a plurality of menu items corresponding to said

plurality of function keys, and said assignment means assigns the function

corresponding to the item selected from said operation menu by said selection means to

one of the function keys corresponding to the item selected from the menu items at the

lowest level by said selection means" is met by the fact that any command from any

menu or submenu can be assigned to any of locations 103-107 of the FETCH menu

[Wehmeyer - col. 2, lines 43-46].

Regarding claim 8, the claimed "apparatus according to claim 1, wherein said

control means controls said control object in order to execute the function

corresponding to the item selected by said selection means from the operation menu

displayed on said display unit" is met by the fact that the television receiver provides a

hierarchy of menus for controlling functions affecting the display of the video image

[Wehmeyer - col. 1, lines 50-52].

Regarding claim 9, the claimed "apparatus according to claim 1, wherein said

operating unit comprises a remote control device" is met by remote control 400 of

Wehmeyer - Figure 4.

Regarding claim 10, the claimed "apparatus according to claim 1, wherein said

menu generation means includes a storage unit for storing image data representing said

operation menu" is not discussed explicitly by the Wehmeyer reference. However,

many discussions throughout the text hint at an inherent memory or storage device for

storing the graphics of the menu system. For example, Wehmeyer - column 2, lines 40-

41 teach that a user can program the first three locations of the FETCH menu. The use

of the word program inherently teaches a memory to be programmed with information.

Furthermore, the OSD generator uses graphics for output to the display screen.

Graphics inherently need a place to be stored, therefore making the use of a memory or

storage device for storing the image data representing the operation menu inherent

[Wehmeyer - col. 3, lines 19-21].

Regarding claim 11, the claimed "apparatus according to claim 1, wherein said

menu generation means includes a storage unit for storing character code data and font

data representing said operation menu" is not discussed explicitly by the Wehmeyer

reference. However, many discussions throughout the text hint at an inherent memory

or storage device for storing the graphics of the menu system. For example, Wehmeyer

- column 2, lines 40-41 teach that a user can program the first three locations of the

FETCH menu. The use of the word program inherently teaches a memory to be

programmed with information. Furthermore, the OSD generator uses graphics for

output to the display screen. Graphics inherently need a place to be stored, therefore

making the use of a memory or storage device for storing the image data representing

the operation menu inherent [Wehmeyer - col. 3, lines 19-21]. Furthermore, the

reference teaches that the user-customizable FETCH menu can either be a graphical

display or a text-based menu, or a combination of the two [Wehmeyer - col. 4, lines 42-

46].

Regarding claim 12, the claimed "apparatus according to claim 1, wherein said

assignment means includes a memory for storing code data representing functions

assigned to said plurality of function keys" is not expressly discussed in the Wehmeyer

reference. However, just as in claims 10 and 11, a memory is inherent to the operation

of the assignment means. Since any command from any menu or submenu can be

assigned to any location of the FETCH menu [Wehmeyer - col. 2, lines 43-46] and the

FETCH menu "virtual buttons" are user-customizable [col. 4, lines 42-46], the use of a

memory for storing the functions associated with the buttons is inherent.

Regarding claim 13, the claimed "apparatus according to claim 1, wherein said

display control means synthesizes a combined image signal by combining the image

signal output from said image input means and the menu image signal generated by

said menu generation means, and displays an image corresponding to said combined

image signal on the display unit" is met by the fact that the video and the graphics are

summed together to create the output for the display screen [Wehmeyer - col. 3, lines

19-43].

Regarding claims 14-17, see the above rejection of claim 1.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Clyde H. Jones III whose telephone number is 571-272-

5946. The examiner can normally be reached on 9-5:30 p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chris Grant can be reached on 571-272-7294. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Note to Applicant

Art Units 2611, 2614 and 2617 have changed to 2623. Please make all future
correspondence indicate the new designation 2623.

CJ

CHRISTOPHER GRANT
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600